

Chapter 13 - ALRE Maintenance Organizations & Responsibilities

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Chapter 13

ALRE Maintenance Organizations and Responsibilities

13.1 Shipboard Procedures

13.1.1 The commanding officer is responsible to ensure correction of material problems at the lowest possible maintenance level. Maintenance accomplishment shall be in the following priority:

a. When maintenance is within the capacity and capability of ship's force, V-2 division will accomplish it.

b. CV/CVN aircraft intermediate maintenance departments (AIMDs), tenders, repair ships, and Shore Intermediate Maintenance Activities (SIMAs) have the ability to undertake work which is beyond the capacity and/or capability of the V-2 division. Ships are encouraged to use these facilities to the maximum extent possible.

c. Naval/private shipyards and naval aviation depots (NAVAVNDEPOTs) and Naval Air Warfare Center Aircraft Division Lakehurst NJ (NAVAIRWARCENACDIV) perform work beyond the capability/capacity of ship's force and SIMAs.

13.1.2 Alterations shall not be accomplished unless properly authorized.

13.1.3 The responsibility for the inspection of work performed by industrial activities is assigned to ship's commanding officers by Navy Regulations.

13.1.4 When the ship's V-2 division cannot accomplish ALRE maintenance, maintenance assistance should first be sought from the CV/CVN's IMA. The ALRE maintenance officer seeks higher-level maintenance assistance through the ship's maintenance manager, using a properly authorized Work Request (OPNAV 4790/2K or 4790/2R). The ALRE maintenance officer ensures that all work that must be deferred by V-2 division is entered into the CSMP. The CV/CVN maintenance manager brokers the work by attempting to obtain maintenance services from either the engineering department (such as emergency parts manufacture from the repair division) or AIMD (calibration, non-destructive inspection (NDI), etc.) before forwarding the Work Request to the type commander. Since AIMD is under the Aviation 3-M System, maintenance support from that department is requested using a VIDS/MAF (OPNAV 4790/60). Documentation of maintenance completed by the AIMD is the responsibility of the ALRE maintenance officer. A copy of the VIDS/MAF must be attached to the completed ALRE MAF.

13.1.5 The Ships' Maintenance and Material Management (3-M) System shall be implemented and updated through careful planning by individual ships and critical study by responsible commanders so that material readiness will be maximized and that the time and expense required for maintenance availabilities are reduced to a minimum. A current and accurate Current Ship Maintenance Project (CSMP) is the basic foundation to any maintenance program.

13.1.5.1 The Planned Maintenance System (PMS) defines the minimum scheduled planned maintenance to be carried out on board an individual ship, and will be used to the maximum degree possible.

13.1.6 Skilled ALRE maintenance personnel are scarce and must be utilized in actual maintenance and technical management. Skilled personnel shall not normally be diverted to supply support or administrative functions.

13.2 Type Commanders (TYCOMs)

13.2.1 The Commanders, Naval Air Force, U.S. Atlantic/Pacific Fleets (COMNAVAIRLANT/PAC) are responsible for determining ALRE maintenance requirements to be developed in geographic support areas. This includes identification of ALRE maintenance requirements for SIMAs, assistance in establishing manning levels, development of coordinating documents (memoranda of agreement) and coordination between surface and air communities to support the ALREMP.

13.2.2 Commander, Naval Air Force, U.S. Atlantic/Pacific Fleet (COMNAVAIRLANT/COMNAVAIRPAC) maintenance policy is to maintain aircraft carriers (CV/CVNs) in a state of material readiness that will assure the highest possible degree of operational readiness for all contingencies, consistent with the availability of resources. Responsibilities for overall maintenance of CV/CVNs are defined in Chapter 7, U.S. Navy Regulations, Fleet Regulations, and various TYCOM Directives as appropriate.

13.2.3 The COMNAVAIRLANT ALRE maintenance organization is shown in figure 13-1, and the COMNAVAIRPAC Ship Material organization (Code N43) is depicted in figure 13-2. These organizations provide total ship project/material management functions and force-wide technical direction for ship material maintenance.

13.2.4 The COMNAVAIRLANT Ships Installations (SI) Officer (Code N433) and the COMNAVAIRPAC (SI) Air Systems Officer (Code N435) are responsible for monitoring the maintenance and material condition of all ALRE systems under their cognizance. They screen, control, and direct work and funding for all catapult, arresting gear, and

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visual landing aid systems under their cognizance. These systems officers are responsible for the following actions:

- a. Screening and distributing all ALRE related work requests to Readiness Support Group (RSGs), Regional Maintenance Center (RMCs), shipyards, Naval Ship Repair Facilities (NAVSHIPREPFACs), Naval Aviation Depots (NAVAVNDEPOTs), or Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) and notifying the ship of maintenance action screening disposition.
- b. Screening and coordinating all ALRE maintenance/material message traffic.
- c. Reviewing CSMP on a recurring basis.
- d. Attending all meetings/conferences on maintenance/material matters (e.g., work definition conferences (WDCs)).
- e. Reviewing required ALRE SHIPALTs.
- f. Screening all ALRE maintenance/material Casualty Reports (CASREPs).
- g. Coordinating all ALRE maintenance/material requirements with the ship's maintenance manager for inclusion in the integrated work package.
- h. Coordinating Fleet Modernization Program (FMP) ALRE planning with SUPSHIP Newport News Code 1800.
- i. Ensuring NAVAIRWARCENACDIV Lakehurst Carrier and Field Services Unit (CAFSU) technical assistance is provided to fleet units and industrial activities.
- j. Coordinate scheduling of NAVAVNDEPOT/NAVAIRWARCENACDIV Voyage Repair Teams (VRTs) who perform ALRE systems maintenance and repair.

13.3 Intermediate Maintenance Activities (IMAs)

13.3.1 An IMA comprises all departmental/organizational units responsible for providing maintenance support to supported units, whether ashore or afloat. The Navy ship is a unique entity in that responsibility for both operation and maintenance rests with the ship itself. The ship's V-2 division has the primary responsibility for operating and maintaining a CV/CVN's ALRE systems. As a measure of the CV/CVN's self-sufficiency, each carrier is designated, by OPNAVINST 4700.7J, an IMA, comprised of

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the aircraft intermediate maintenance department (AIMD), engineering, supply, and weapons departments. The CV/CVN AIMD will provide appropriate ALRE maintenance support, where capability and capacity exist.

13.3.2 SIMAs are responsible for performing maintenance functions on ships, ship's equipment, and other systems of the supported activities as directed by the TYCOMs.

13.3.2.1 SIMA repair capabilities are designed to provide ALRE maintenance support to the CV/CVN air department. Repair capabilities and potential may be modified to meet expanded requirements. SIMAs, performing ALRE maintenance shall:

a. Ensure that quality control is exercised in the accomplishment of every job.

b. Keep customer ships fully apprised of the status of all work accepted.

c. Inform the TYCOM of any ALRE maintenance related matters/problems that cannot be resolved at the ship/SIMA level.

13.3.2.3 ALRE work requested from a SIMA will be submitted in accordance with OPNAVINST 4790.4C (NOTAL) and TYCOM directives. Work is normally programmed during specified availability periods but may be requested at anytime, with TYCOM approval. Scheduled availability periods will be preceded by a work definition conference (WDC) to discuss screening, services, problem areas, and to establish the basic procedures for SIMA efforts. Work requests are submitted to the TYCOM for approval prior to the availability period, with additional work approved on a case-by-case basis.

13.3.3 The Commercial Industrial Services (CIS) Program is designed to provide a means of accomplishing that ship's work which is beyond the capacity, but within the capability, of Fleet IMAs. CIS may also be used to reduce working hours of fleet personnel by having contractors accomplish selected maintenance.

13.4 Depot Industrial Functions

13.4.1 ALRE depot maintenance provides technical help in carrying out those functions that are beyond the responsibility or capability of the shipboard maintenance organizations. Large-scale maintenance and repairs are usually performed during overhaul and availability periods with approved alterations and modifications also being accomplished. Industrial establishments may be any combination of government or contractor owned and operated. These facilities include Naval shipyards (NAVSHIPYDs), private shipyards,

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Naval Ship Repair Facilities (NAVSHIPREPFACs), Naval Aviation Depots (NAVAVNDEPOTs)/Naval Air Warfare Center Industrial (NAVAIRWARCENACDIV/PMD) Lakehurst Voyage Repair Teams (VRTs), and private contractors.

13.4.2 As implemented within the Department of the Navy (DON), depot industrial functions consist of three general categories:

a. Those involved in the maintenance or modification of existing ship installed ALRE end items, systems, components, and support equipment.

b. Those involved in the manufacture of items and component parts not otherwise available.

c. Those involved in support services functions that include professional engineering, technological, and calibration services.

13.4.2.1 Depot maintenance functions are required to maintain or restore the designed service levels of performance, reliability, and material condition; they include complete rebuild through reclamation, refurbishment, overhaul, repair, replacement, adjustment, servicing, and replacement of system consumables. They also include inspection, calibration, and testing.

13.4.2.2 Depot modification functions are required to change or improve design levels of performance, reliability, and material condition. The term modification, as used in this instruction, includes alterations, conversion, engineering changes, and modernization.

13.4.3 NAVAVNDEPOT/NAVAIRWARCENACDIVs are the Navy's primary aviation industrial establishments for ALRE repair. NAVAVNDEPOT/NAVAIRWARCENACDIVs are responsible for:

a. Ensuring compliance with controlling directives from higher authority concerning policies, procedures, workload, funding, organization, staffing and facilities.

b. Ensuring that production output of the establishment is timely and of proper quantity and quality.

c. Performing depot maintenance on ships' installed ALRE.

d. Providing Type III (Type I and II in certain instances) Navy Calibration Laboratory (NAVCALAB) facilities.

13.4.3.1 NAVAVNDEPOT/NAVAIRWARCENACDIV Voyage Repair Teams (VRTs) are small groups of shipyard trade specialists cross-trained and

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capable of functioning in two or more trades. All VRT personnel shall be trained to ALRE rework standards established by the NAVAIRWARCENACDIV Lakehurst. VRTs are established at the NAVAVNDEPOTS in North Island and NAVAIRWARCENACDIV DET Norfolk and Mayport. VRT personnel perform designated scheduled and unscheduled depot maintenance, repair, refurbishment, replacement, and modification tasks in direct support of NAVAIRSYSCOM shipboard and shore-based ALRE installations. Artisans are responsible for ensuring the quality assurance inspection of all work performed.

13.4.4 NAVSHIPYDs are shore activities of NAVSEASYSKOM. The NAVSHIPYDs located at Norfolk and Puget Sound furnish depot maintenance facilities and technical guidance for carrier availability's and overhaul periods. These industrial activities perform major repair, modifications, and overhauls to ALRE and are responsible for the proper installation, alteration, and test of this equipment in accordance with current drawings and directives.

13.4.5 The NAVAIRWARCENACDIV Lakehurst as the FST is responsible for research, engineering, development, test and evaluation, systems integration, limited production, procurement, overhaul/repair, and in-service engineering of ALRE. It also provides technical and logistics support to all activities in support of installation, operation, overhaul, maintenance, repair and certification inspections of ALRE, and provides representatives to the Board of Inspection and Survey (INSURV).

13.4.5.1 NAVAIRWARCENACDIV Lakehurst is the designated repair point (DRP) on selected ALRE (launch valves, Capacity Selector Valve etc.). In addition to ALRE overhaul and repair, it also can manufacture ALRE systems in limited quantities and is a source for ALRE spares and components which cannot be obtained by normal means.

13.5 Carrier and Field Service Unit (CAFSU)

13.5.1 CAFSU is under NAVAIRWARCENACDIV Lakehurst Fleet Technical Services. The CAFSU is comprised of civilian technicians who are highly skilled and thoroughly qualified in the operation, maintenance, repair, installation and test of ship- and shore-based aircraft launching, recovery and visual landing aids systems. As the technical representatives of the Type Commanders and NAVAIRWARCENACDIV Lakehurst, they are dispersed in field offices to provide immediate technical assistance to fleet personnel and industrial activities throughout the Atlantic and Pacific Fleet operating areas. CAFSU field offices are located at Naval Aviation Depot, North Island; Naval Stations Mayport; Bremerton, Norfolk, Portsmouth; Yokosuka Naval Ship Repair Facility, and Newport News NAVSHIPYD. The CAFSUs report to the NAVAIRWARCENACDIV Lakehurst

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for administrative purposes and are under the joint operational control of their TYCOM and NAVAIRWARCENACDIV Lakehurst.

13.5.2 CAFSU is required to maintain technical liaison with the above commands and is responsible for providing all parties with timely technical information. CAFSU will provide technical assistance during complex overhauls, for all maintenance availabilities, and to ships not in a repair status. A CAFSU representative will monitor all shipyard repairs, modifications and operational tests of shipboard ALRE. All technical questions concerning this equipment will be directed to the local CAFSU representative. CAFSU will submit timely written reports concerning repairs, alterations, and work accomplished to the Type Commander (COMNAVAIRLANT Code N433 or COMNAVAIRPAC Code N435), NAVAIRWARCENACDIV Lakehurst, and to the ship's ALRE Maintenance Officer. CAFSU is the final authority for recommending or not recommending certification of all ALRE following overhaul and other times.

13.5.2.1 Commanding officers:

a. Request CAFSU technical assistance when required, by message, letter, or informal means from the TYCOM. In case of a formal request, direct an information copy to the local CAFSU field office.

b. Provide officer-equivalent berthing and messing facilities for CAFSU representatives when embarked.

c. Pass to COMNAVAIRLANT (Code N433)/COMNAVAIRPAC (Code N435) any comments concerning meritorious or substandard performance of CAFSU representatives.

d. Upon completion of a CAFSU assignment at sea, ensure timely departure from the ship.

13.5.2.2 NAVSHIPYDs and repair activities:

a. Provide support to CAFSU field offices, as appropriate, to allow for objective accomplishment.

b. Refer technical questions concerning launching, recovery, and visual landing aids equipment to a local CAFSU representative for timely resolution.

13.6 Overhauls and Availabilities

13.6.1 Large-scale ALRE maintenance and repairs requiring industrial facilities are performed during depot availability's.

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Approved alterations and modifications that update and improve the ship's capabilities are also accomplished. Aircraft carriers are also assigned availabilities with afloat (tenders and repair ships) or shore IMAs. The following types of industrial availabilities are defined:

a. A COH/DPIA/RCOH is an overhaul/availability that, because of funds, time, or manpower constraints, or the complexity or interrelationship of the various ship subsystems affected by the overhaul or availability work packages, requires extraordinary coordination and extensive management of the planning and industrial phases of the overhaul/availability in order to produce a high level of confidence that the overhaul/availability will be satisfactorily completed.

b. A SRA/PIA is an availability for the accomplishment of repairs and selected alterations by depot and/or intermediate maintenance activities. SRA/PIAs are assigned to sustain the material condition of ships between overhauls, particularly those ships on extended operating cycles. During SRA/PIAs required depot level maintenance is executed on a progressive or incremental overhaul strategy. SRA/PIAs are short, labor-intensive availabilities that are generally scheduled at specific times throughout the operating cycle. They are scheduled sufficiently far in advance to ensure planning time and funds are effectively utilized. Following each extended deployment, a 4 or 6 month SRA/PIA will be scheduled for each CV/CVN in order to accomplish major repairs and high priority SHIPALTS.

c. Scheduled Upkeep is a minor repair period during a ship's operational cycle where specific items of work by an industrial activity with the ship present. During an RAV, the ship is incapable of fully performing its assigned missions and tasks.

d. Voyage repair (VR) is emergency work necessary to enable a ship to continue its mission. VRs can be accomplished without requiring a change in the ship's operating schedule or changing the general steaming notice in effect.

13.6.2 The forward deployed CV employs the incremental selected restricted availability (ISRA), the (progressive maintenance) concept which consists of availability's by ship repair facilities. All of forward deployed carrier's availabilities are incrementally conducted in the Western Pacific (WESTPAC) area with the U.S. Naval Ship Repair Facility (NAVSHIPREPFAC) at Yokosuka, Japan.

13.6.2.1 COMNAVAIRPAC provides funds directly to NAVSHIPREPFAC Yokosuka for ALRE maintenance performed during availabilities at this activity.

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13.6.2.2 Modernization of the forward-deployed CV is accomplished, as it is with the other ships of the force, with NAVSHIPPREPAC Yokosuka performing as the Planning Agent. Assistance and management of the modernization program is provided by SUPSHIP NNVA CODE 1800. Although SHIPALTs are accomplished during each availability, large alterations are usually deferred to an ISRA. Normal planning milestones and procedures are followed except that ISRAs are programmed starting with the beginning of each fiscal year.

13.7 Supervisor of Shipbuilding Newport News Code 1800 (SUPSHIP NNVA CODE 1800)

13.7.1 Supervisor of Shipbuilding, Conversion and Repair Newport News (Code 1800) is an extension of the NAVSEA Aircraft Carrier Program Office (PMS-312). SUPSHIP Code 1800 provides life cycle planning and engineering for repairs and alterations for aircraft carriers and integrates the requirements of various commands. It also manages the planning and engineering efforts for scheduled availabilities. SUPSHIP Code 1800 modernization planning assists COMNAVAIRSYSCOM, the COMNAVSEASYSYSCOM Aircraft Carrier Program Office, and the air TYCOMs in the execution of the advanced planning of ship alterations (SHIPALT). The Fleet Modernization Program (FMP), Title K, Title D SHIPALT and others such as Alteration Installation Team (AIT), etc., are used as the basis for alterations to be planned.

13.7.2 SUPSHIP Code 1800 prepares a modernization workbook for each major aircraft carrier availability which defines alteration work to be accomplished so that common understanding among Systems Commands, CNO, air TYCOMS, Ship's Force and NAVSHIPYDs as appropriate is assured. SHIPALT records are developed and tailored to a specific ship and enables the preparation of accurate estimates, identifies special and long lead-time material, and becomes the basic planning document for the industrial activity accomplishing the overhaul. SHIPALT records are usually based on a shipcheck.

13.7.3 In order for SUPSHIP Code 1800 to perform its planning functions, SUPSHIP Code 1800 shall be an information addressee on all correspondence affecting ship maintenance.

Mailing Address: Supervisor of Shipbuilding,
Conversion and Repair (Code 1800)
4101 Washington Ave., Bldg 2
Newport News, VA 23607-2787

Message Address: SUPSHIP NEWPORT NEWS VA//1800/1822//

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13.8 Work Definition Conference (WDC)

13.8.1 The WDC is the most significant planning event preceding overhaul or availability. Its primary purpose is to establish the scope of repairs to be undertaken by the NSY for SUPSHIPS and to ensure that there is mutual understanding of all issues between all parties concerned. The WDC is normally conducted on board ship and includes key members of ship's force (i.e., commanding officer, executive officer, department heads, leading petty officers, work center supervisors), the TYCOM maintenance manager and SI Officer, SUPSHIP Code 1800, and the industrial repair activity. Alteration and repair package problems are resolved and screening decisions made about industrial and forces afloat repair packages with respect to available funds and Industrial/Ship's Force man-days.

13.8.2 A significant portion of the total work undertaken during scheduled overhauls and availability's is screened to ship's force for accomplishment. This work must be planned and managed to ensure the most effective utilization of available time and manpower. The ship's force work package (SFWP) (items screened for ship's force accomplishment) is defined following decisions made at the WDC. Development of the SFWP should be based on the CSMP, giving consideration to anticipated manning requirements, leave schedules, required schools, available skill levels, fire watches, PMS requirements, housekeeping, shipyard work inspection requirements, normal watches and other duties.

13.8.3 A secondary purpose of the WDC is to discuss preparations which must be made before entering a private shipyard. Certain precautions or special preparations with regard to off-loading or storage of items may be required. These requirements should be determined during the WDC. SUPSHIPS has documented information on planning, conducting and completing SRAs. Any off-loading requirements unique to the location in which the ship will be repaired will be contained in this compilation of information. If the commanding officer has not received this information prior to the WDC, it should be requested during the conference.

13.9 Emergency Essential Repairs (EER)

13.9.1 After the final WDC, additional work for an availability will be considered for essential repairs. EERs will be submitted by message and must meet all the following criteria:

- a. Not previously submitted.
- b. Safe and reliable operation of the ship or equipment cannot be assured unless completed.

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c. Must be completed during the current availability; would result in a CASREP if not corrected.

d. Are beyond the capability of ship's force and SIMA.

13.9.2 EER work requests may be submitted subsequent to fixed-price determination. Since they invariably result in greatly increased cost and may delay overhaul completion, every effort must be made to ensure that all foreseeable work items are identified and submitted prior to fixed-price determination. Items which do not meet the EER criteria should be listed in the ship's CSMP for correction during subsequent availability's.

13.9.3 Supplemental work requests and EER requests are not to be submitted for work that is presently authorized or should be corrected through the shipyard's discrepancy correction program.

13.10 Ship Installation (SI) Equipment Services Changes

13.10.1 SI service changes are issued for catapult, arresting gear, visual landing aids, and wind measuring systems under the technical cognizance of NAVAIRSYSCOM.

13.10.2 SI service changes designated for forces afloat accomplishment are authorized upon receipt of service change material kits provided by the TYCOM. Incidental material not provided in service change material kits will be requisitioned on a non-reimbursable basis or otherwise procured utilizing OPTAR funds. Commanding officers are encouraged to schedule the accomplishment of SI service changes as time, funds, material, and manpower permit.

13.10.3 Only the TYCOMs may authorize SI service changes designated for shipyard or Voyage Repair Team (VRT) accomplishment. Approximately 300 days before a shipyard availability, NAVAIRWARCENACDIV Lakehurst will forward to the industrial activity, via the TYCOM, a list of outstanding SI service changes. The TYCOM will review the list for applicability, material availability, status and priority. The list of SI service changes that are authorized and funded for accomplishment will then be forwarded to the repair activity, with a copy to the ship concerned. Responsibility for accomplishment of a forces afloat change by the industrial activity will be stated in the endorsement to the basic letter. Upon receipt of the NAVAIRWARCENACDIV Lakehurst 300-day letter, with TYCOM endorsement, commanding officers will advise the TYCOM by message, with the appropriate carrier group commander (COMCARGRU) as information addressee, within 2 weeks if any authorized SI service changes have been

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completed or partially completed (stating what portions have been completed).

13.10.4 SI service changes which the TYCOM desires to be accomplished during scheduled post-deployment restricted availability's will be authorized concurrently with the authorization of SI equipment repairs.

13.10.5 Following major repairs or modifications, SI equipment must be tested to demonstrate proper performance capability.

13.10.6 All service changes approved for accomplishment by forces afloat shall be entered in the ship's CSMP until completed or canceled.

13.10.7 SI service change incorporation should be reported within 3 days of completion using OPNAV 4790/CK. Report completion to NAVAIRWARCENACDIV Lakehurst on the Form 1511 provided with the service change.

13.11 Unauthorized Alterations of Ships

13.11.1 Unauthorized alterations, rearrangements of ships, and deviations from ship class accomplished without specific written approval of higher authority exist among ships of the same class. These minor or major unauthorized changes include actual rearrangement of spaces, joiner bulkheads, and equipment to suit the desires of a particular ship's force which make logistic support difficult and may cause unsafe conditions. Therefore, commanding officers shall ensure that no alterations or rearrangements are made unless specifically approved and authorized by appropriate authority. Unapproved alterations or rearrangements shall be submitted into the ship's CSMP citing the letter reference which requests approval and listing UNAUTH in the alteration number authority block.

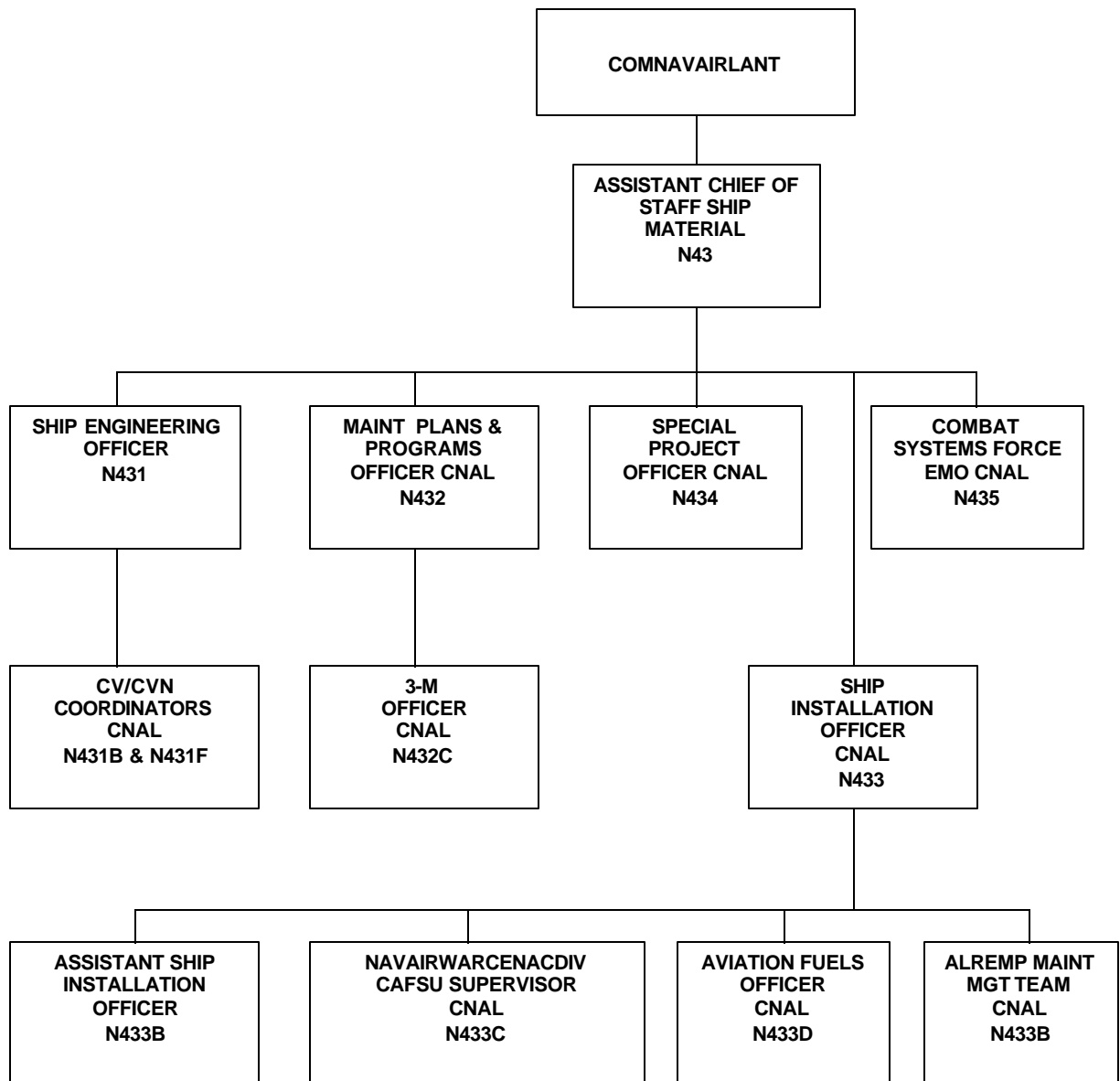


Figure 13-1. COMNAVAIRLANT ALRE Maintenance Organization

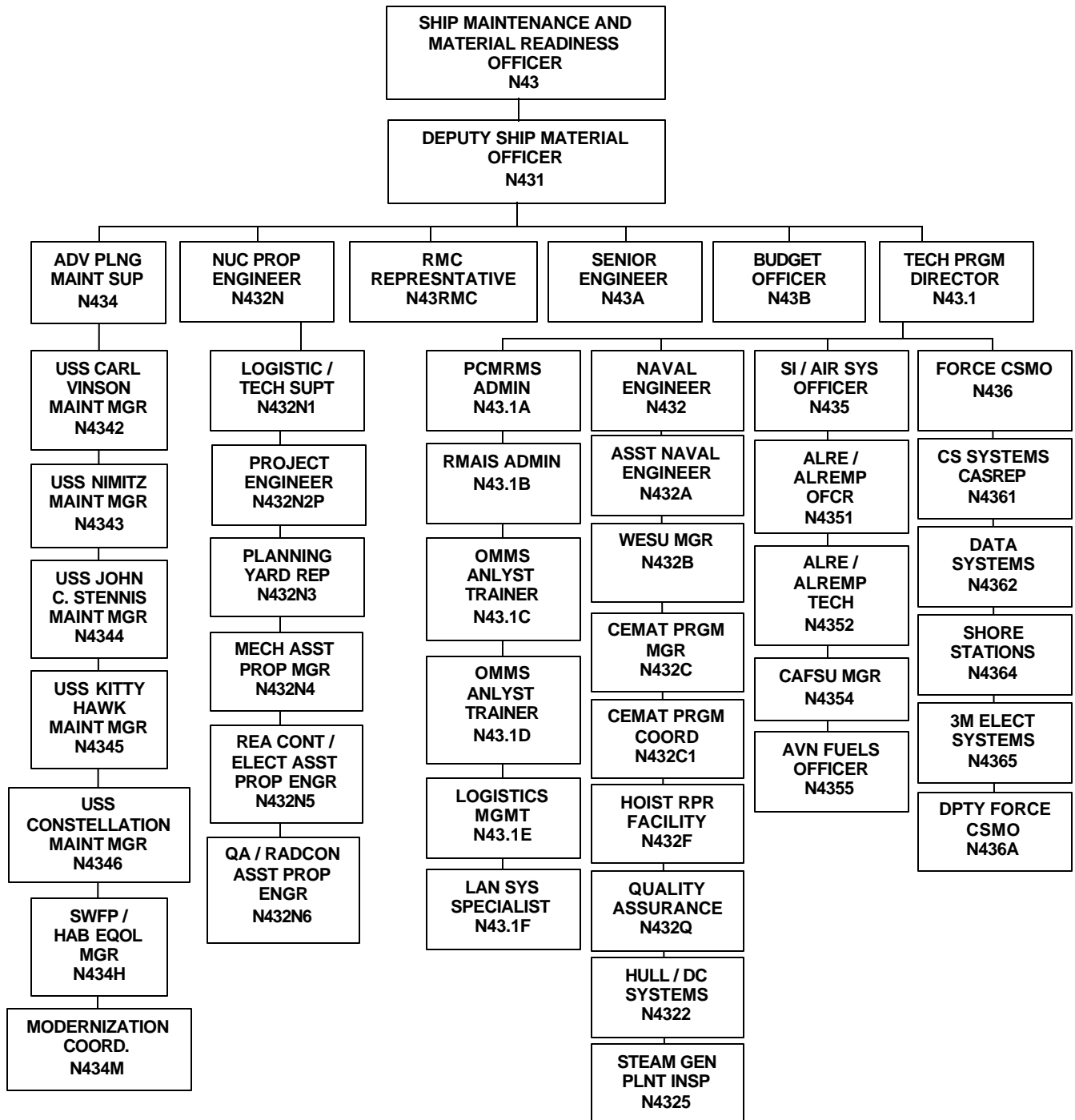


Figure 13-2. COMNAVAIRPAC Ship Material Organization